CLAIMS

WHAT IS CLAIMED IS:

1. A method for secure data transfer in a wireless networked communication system, comprising the steps of:

generating an encryption key within a first device of the communication system;

encoding the encryption key to form an encoded signal;

transmitting the encoded signal to a second device of the communication system remote from the first device;

decoding the encoded signal at the second device to extract the encryption key; and

using the encryption key to encrypt and decrypt data for subsequent wireless transmissions between the first and second devices.

2. The method of claim 1, wherein the encoded signal is an acoustic signal.

3. The method of claim 2, wherein the acoustic signal is DTMF tones.

4. The method of claim 1, wherein the encoded signal is an infrared signal.

5. The method of claim 1, wherein the step of decoding further comprises the step of storing the decoded encryption key in memory.

6. The method of claim 1, wherein the step of decoding further comprises the step of performing error detection to determine if an error has occurred in connection with the reception or decoding of the encryption key.

7. The method of claim 6, further comprising the step of sending a request for a retransmission of the encoded signal if an error is detected.

8. The method of claim 1, wherein the step of using the encryption key to encrypt and decrypt subsequent wireless transmissions further comprises the step of encoding the data into radio frequency signals.

9. The method of claim 1, further comprising the step of determining whether a new encryption key is required.

10. A system for secure data transmission within a wireless communication system, comprising:

a first device of the communication system, the first device having an encryption key generator for generating the encryption key and a signal transmitter for transmitting an encoded signal representative of the encryption key; and

a second device of the communication system, the second device having a signal sensor for receiving the encoded signal from the first device and a decoder device for extracting the encryption key from the encoded signal, the encryption key being used to encrypt data being transmitted between the first and second devices.

11. The system of claim 10 wherein the first device further comprises an encoder device for encoding the encryption key into an encoded signal for transmission.

12. The system of claim 11 wherein the encoder device is an acoustic codec.

13. The system of claim 10, wherein the encoded signal is an acoustic signal.

14. The system of claim 10, wherein the signal transmitter is an acoustic transmitter and the signal sensor is an acoustic sensor.

15. The system of claim 10, wherein the decoder device is an acoustic codec.

16. The system of claim 10 further comprising memory in the first and second devices for storage of the encryption key.

17. The system of claim 10 further comprising an encryption/decryption module in the first and second devices for encrypting data for transmission and decrypting data received from the other device.

18. The system of claim 10 further comprising a radio-frequency codec in the first and second devices for encoding the data into radio-frequency signals.

19. The system of claim 18 further comprising a radio-frequency transceiver in the first and second devices for transmission and reception of the radio-frequency signals within the communication system.

20. A system for secure data transmission within a wireless communication system, comprising:

means for generating an encryption key within a first device of the communication system;

means for encoding the encryption key to form an encoded signal;

means for transmitting the encoded signal to a second device of the communication system remote from the first device;

means for decoding the encoded signal at the second device to extract the encryption key; and

means for using the encryption key to encrypt and decrypt data for subsequent wireless transmissions between the first and second devices.